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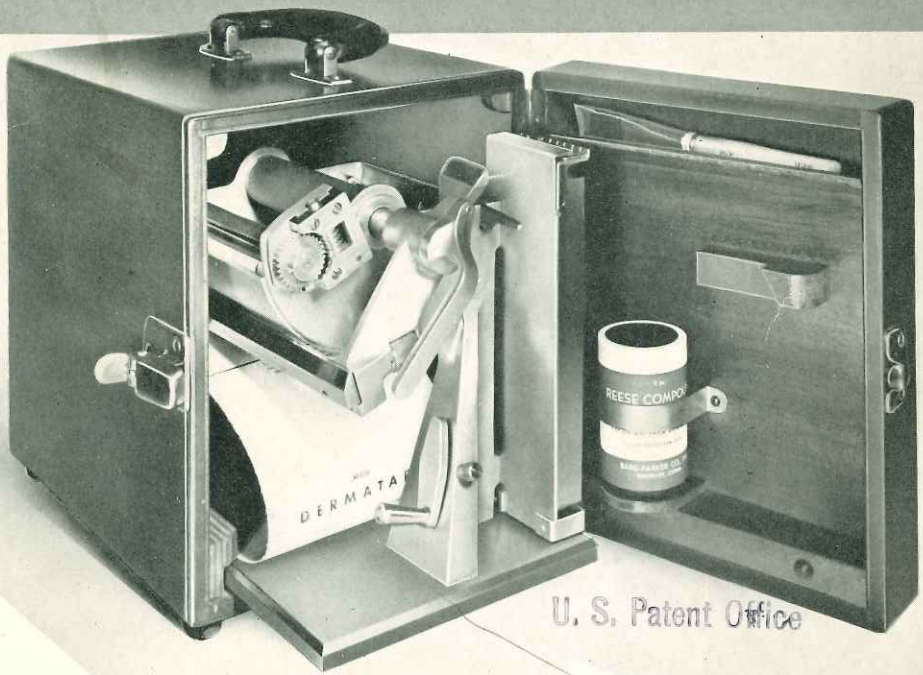
Instructions for using

REESE DERMATOME



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Manufactured by

BARD-PARKER COMPANY, INC. *Agent*

Danbury, Connecticut

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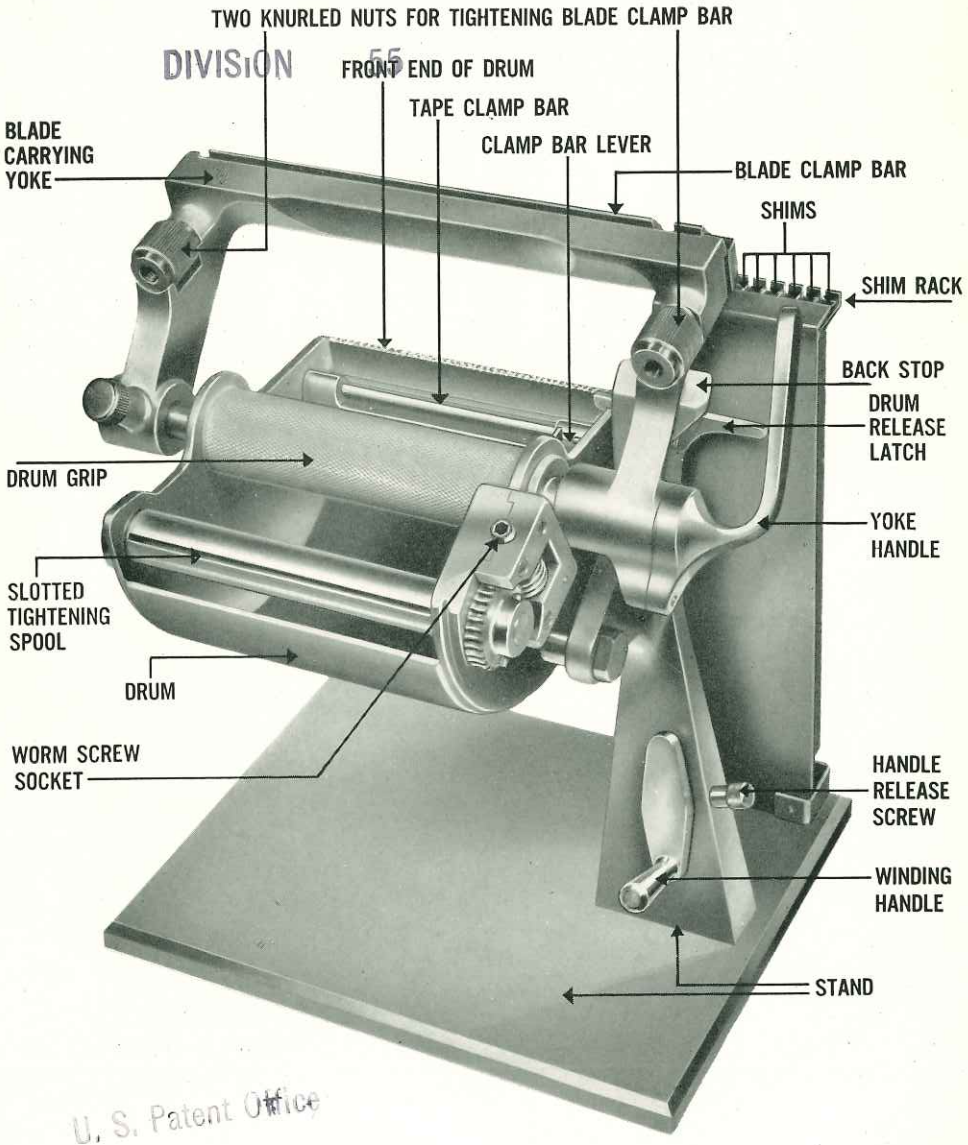

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FIG. 1

The Reese Dermatome consists of three main parts . . .

1. A DRUM WITH BLADE CARRYING YOKE

The drum has a slotted, tightening spool (like a film spool in a camera) inside one end, and a clamp bar inside the other end for attaching the Dermatape. The blade carrying yoke swings radially around the drum for excising the graft. It has a concealed "stop" inside the drum grip to prevent its swinging beyond the end of the drum. This prevents accidental gouging of the donor area beyond the excised graft and also safeguards the surgeon's wrist from an overswing of the blade. For purposes of description the clamp bar end of the drum is referred to as the FRONT end, because it is at this end of the drum that excision of the graft begins.

FIG. 1

2. A STAND WITH SHIM RACK

The stand holds the Dermatome drum while preparing it for use. Upon the stand is mounted the winding handle for operating the tightening spool mechanism which is held in place with retaining screw. The shim rack securely holds the seven thickness shims, and the supplemental shim, during sterilization, and when they are not in use. It facilitates selection of the particular shim to be used.

FIG. 1

3. DERMATAPE*

Reese Dermatape is a special, laminated skin transfer adhesive tape, consisting of a protective plastic facing, a pliable rubber splint for the graft, and a glass fabric backing. Used in conjunction with Reese Compound.

STERILIZATION

1. The Dermatome, stand and the thickness shims (in their rack) may be sterilized by:

(a) Boiling.
(b) Autoclave.

During sterilization the drum should be removed from the stand and wrapped in a towel. The stand and shims should also be wrapped during sterilization.

* Trade Mark Registered U.S. Patent Off.

REESE
DERMATAPE
A Skin Transfer Adhesive Tape
BARD-PARKER COMPANY, INC.
DO NOT AUTOCLAVE

FIG. 2

REESE
DERMATAPE
A Skin Transfer Adhesive Tape
BARD-PARKER COMPANY, INC.

FIG. 3

2. The Blades

To protect the cutting edge:
Sterilize by immersion in Bard-Parker Germicide or Chlorophenyl, and use specially designed blade sterilizing rack No. 1018.

If blade rack is not used, protect edge as follows:

(a) Wrap each blade — separately — in gauze before immersion. (See instructions in blade package.)

(b) When removing the blade from the gauze, unwrap it. *Do not slip the blade out one end of the folded gauze.*

3. The Dermatape

May be sterilized by immersion in:

(a) Bard-Parker Germicide or Chlorophenyl

(b) 70% Alcohol

(c) Aqueous or alcoholic antiseptics

After sterilization, the strips of Dermatape should be dried well before applying to the Dermatome. Dry by wiping with sterile gauze or towel. *Do not boil or autoclave the Dermatape.*

* * *

For safety and convenience, the Dermatome (mounted on its stand) should be placed on a firm, four-legged table so that the shim rack faces away from the operator, and the blade carrying yoke handle is on the operator's right.

APPLICATION OF DERMATAPE TO DRUM

After Sterilization

1. Fold BOTH ends of Dermatape backward (printed side out) along printed cross-lines as sharply as possible with finger pressure. These folds must be made SQUARELY on the lines, to permit aligning the tape SQUARELY on drum. Unless the Dermatape is absolutely straight on the drum it may result in cutting the graft thin on one side, or even cutting into the Deramatape itself.

FIG. 2

2. With the Dermatome drum mounted on the stand, and with the blade carrying yoke hanging beneath it — insert either end of the Deramatape under the clamp bar on the inside of the front end of the drum, so that the printed cross-line (at which the Dermatape has been folded) is square on the front edge of the drum. Hold in that position while tightening clamp bar.

FIG. 3

3. Tighten clamp bar by pressing clamp bar lever down firmly until the lock catch will slide *all the way* under the holding pin.

FIG. 3

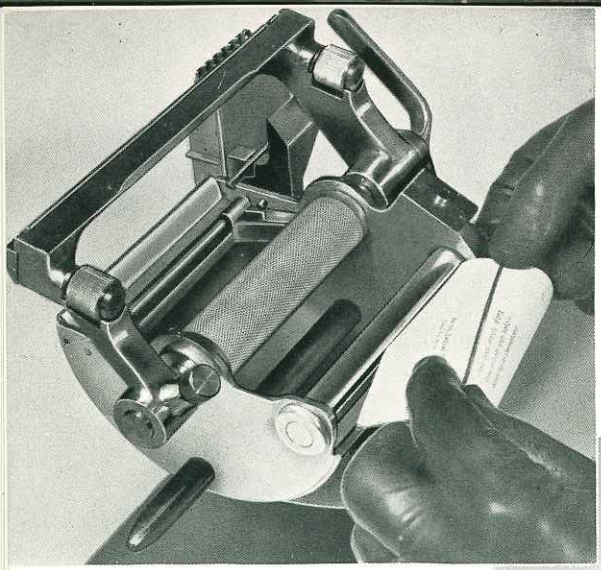


FIG. 4

4. Swing blade carrying yoke up over the drum until it rests against backstop of stand.

5. Wrap Dermatape around drum to see whether it lies centrally on drum face. If not, straighten it at the clamp bar. Then insert free end in slot of tightening spool until the cross-line is flush and parallel with the edge of the slot, so that it will not tear on one side when tightened.

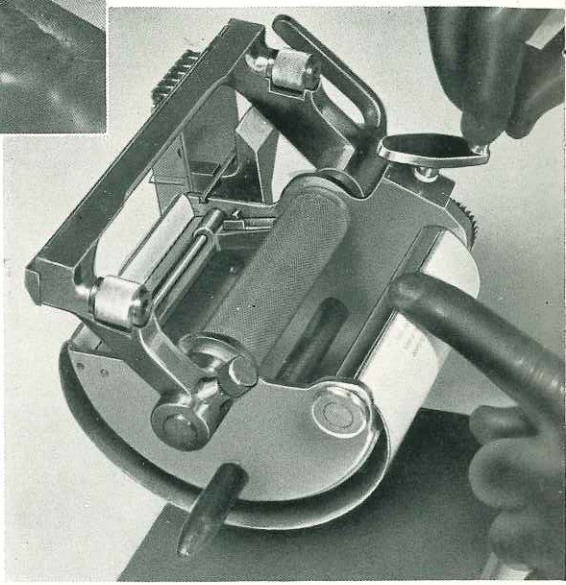


FIG. 5

6. Retain in this position with finger tips of left hand while tightening. Insert winding handle in worm screw socket and turn clockwise to wind Dermatape on spool (like a film in a camera). Continue tightening until all the "slack" of the Dermatape has been taken up.

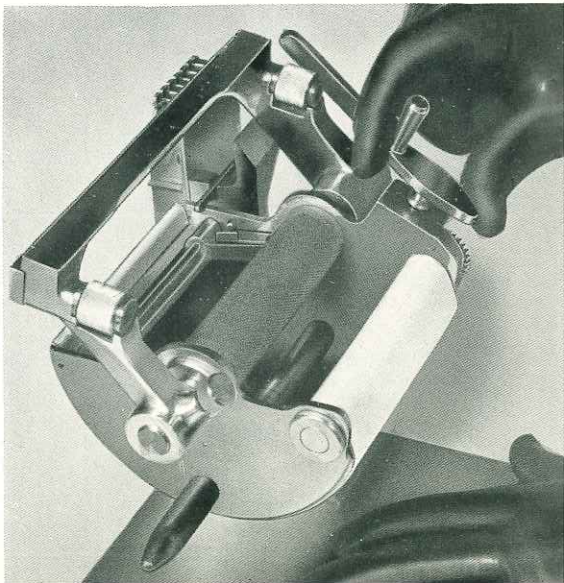


FIG. 6

7. Then, with thumb and forefinger on each end of the handle crossarm, continue the tightening with "measured pressure" until considerable resistance is encountered. THE DERMATAPE MUST BE APPLIED TO THE DRUM TIGHTLY — otherwise it will pull away from the drum while cutting the graft.

FIG. 7

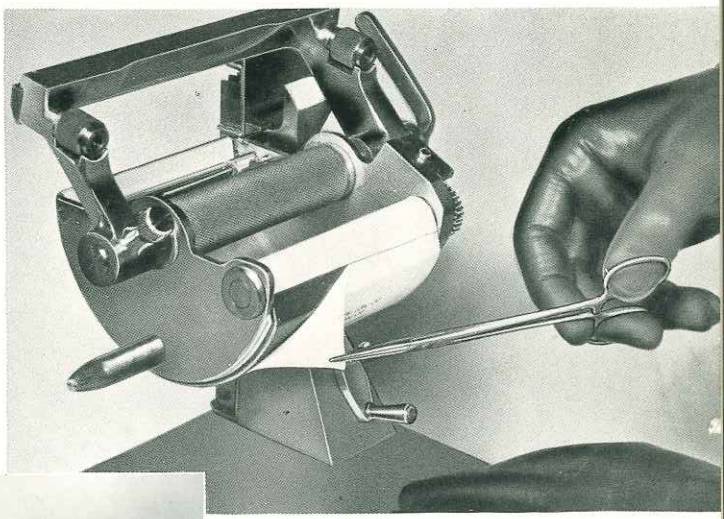
8. Remove winding handle from socket and replace it on stand for safe keeping.

9. With the point of a scalpel, cut LIGHTLY across the plastic face of the Dermatape at a point overlying the tightening spool. BE CAREFUL NOT TO CUT INTO THE GREEN RUBBER BENEATH.

FIG. 8

10. Peel off the printed, plastic facing half-way around the drum exposing the green Dermatape surface.

11. Swing the blade carrying yoke to hanging position beneath the drum with the right hand.



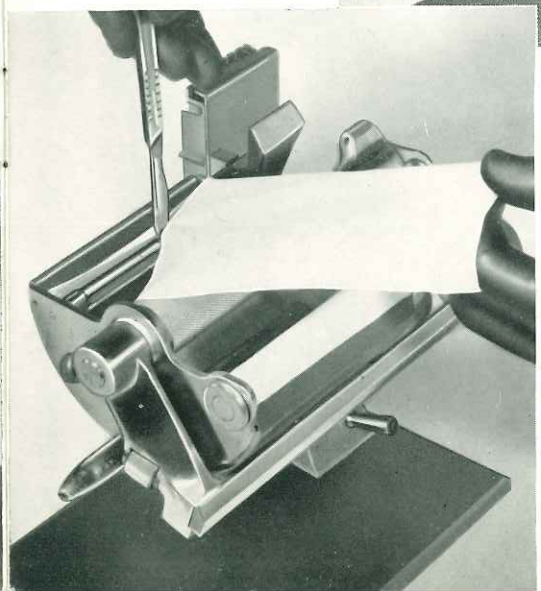


FIG. 9

12. Resume peeling the plastic facing around the remainder of the drum, continuing over the front edge and downward to the clamp bar. At this point cut across the plastic facing with a scalpel and discard.

13. Restore the blade carrying yoke to its upright position on the stand.

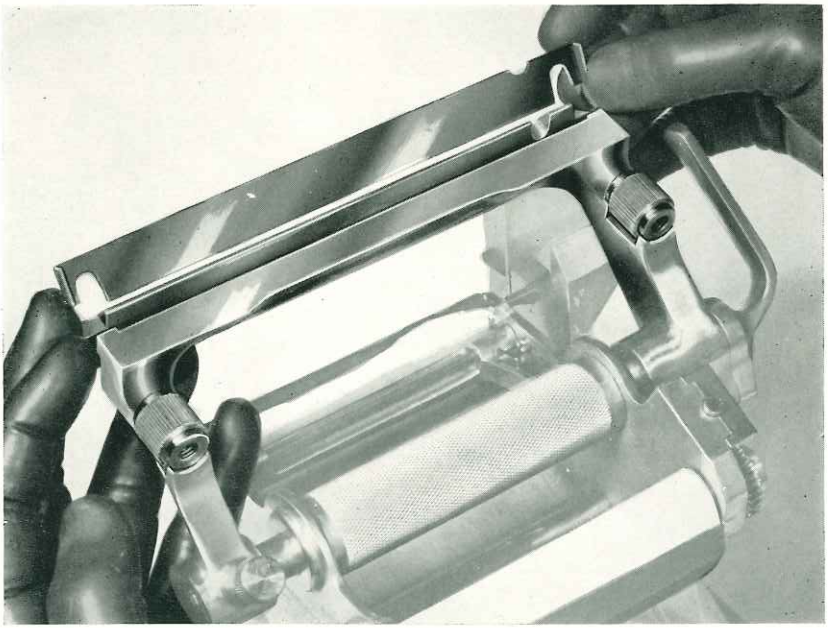


FIG. 10

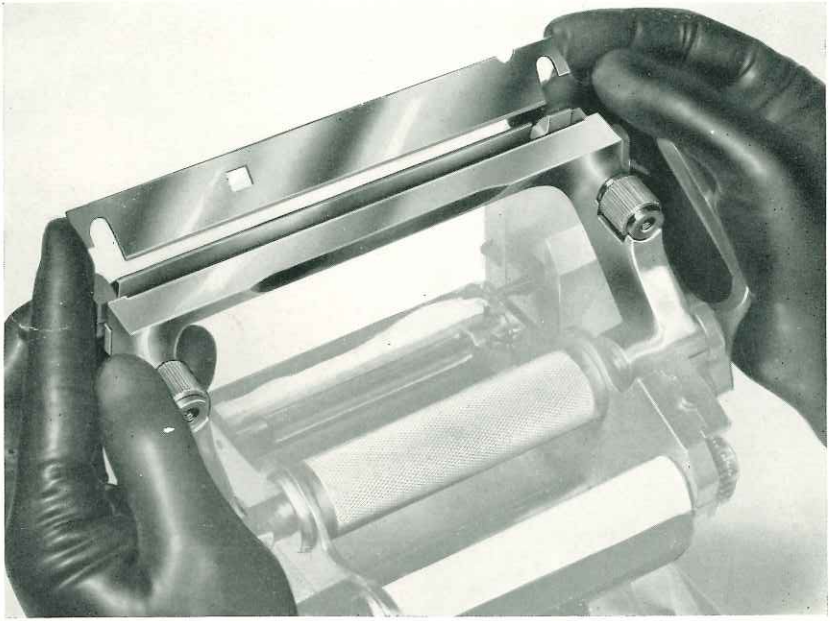


FIG. 11

INSERTION OF THICKNESS SHIM AND BLADE IN BLADE CARRYING YOKE

1. In the shim rack are seven thickness shims and one supplementary shim, each with a small bent over portion at each end. The number on the bent over end of each thickness shim indicates the thickness in thousandths of an inch that the graft will be cut from .008″ to .20″ inclusive.

As a guide in determining the thickness of the graft to be excised with the Reese Dermatome we suggest use of the shims as follows:

THIN GRAFTS —(.008″ to .012″)—Shims marked 8, 10 and 12.

MEDIUM GRAFTS—(.014″ to .020″)—Shims marked 14, 16, 18 and 20.

THICK GRAFTS —(.022″ to .034″)—Any of the above shims plus the Supplementary shim.

The Supplementary Shim

The supplementary shim is .014″ thick and adds that amount to any of the regular shims with which it is used. Thus, to cut a .030″ graft place the supplementary "S" shim on top of the regular #16 shim. It must not be used ALONE — i.e., — if a .014″ graft is desired the regular shim marked 14 is to be used. IN USE — it is placed between the regular shim and the blade.

2. With the blade carrying yoke resting against the back stop of the stand, open the blade clamp bar on the yoke about ⅜″ by unscrewing the two knurled nuts. Both nuts should be turned at the same time to keep the clamp bar parallel with the base of the yoke.

3. Slide the chosen shim between the yoke body and clamp bar with bent over ends pointing toward knurled nuts, and with the half round notch in the back edge of the shim toward the right hand side.

FIG. 10

4. Slip a knife blade on top of the shim and under the clamp bar so that the half round notch on the back edge of the blade aligns with the half round notch on the back edge of the shim.

FIG. 11

5. With firm finger pressure tighten both knurled clamp bar nuts simultaneously so that the clamp bar closes parallel to the base of the yoke. *Do not, under any circumstances, force these nuts by applying pressure with pliers or other tool.* They should be operated with finger pressure only.

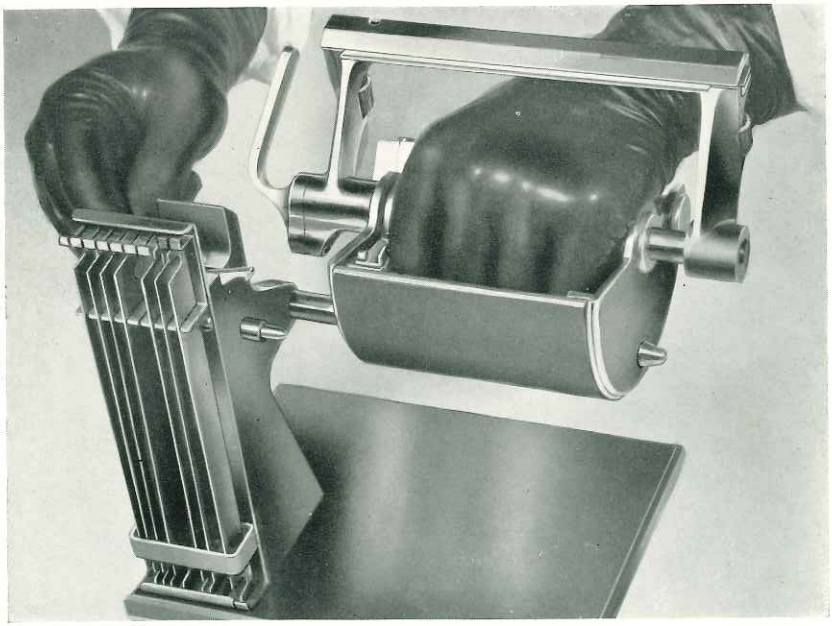


FIG. 12

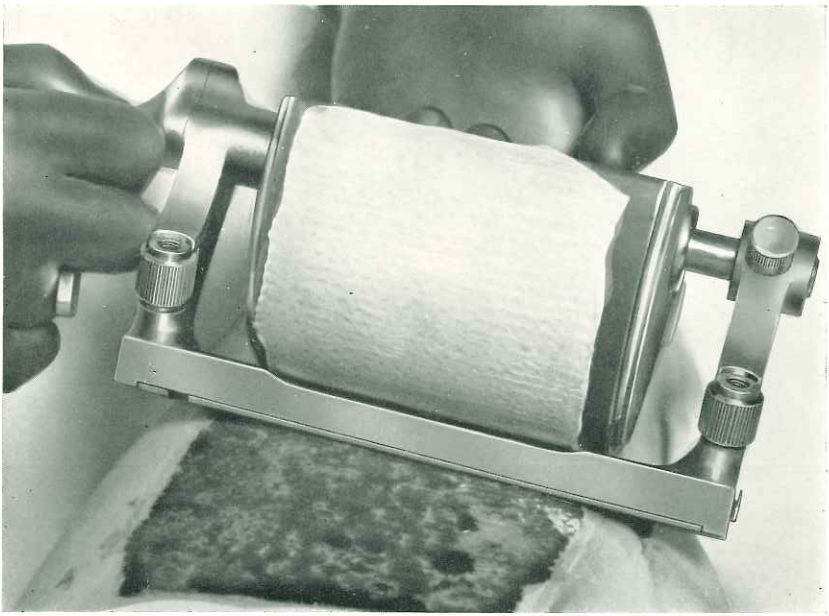


FIG. 13

THE DERMATOME IS NOW READY FOR USE

Preparation of Donor Area

(After skin preparation of choice)

1. Good adhesion requires a dry, soap-free, oil-free donor area. To insure this, scrub skin briskly with liberal amount of ether, and let dry before applying Compound.
2. Coat donor area with uniform application of Reese Compound.
3. Allow Compound to dry until it loses its glisten, usually about 3 minutes.

The Reese Compound is especially formulated to give adequate and dependable adhesion between the green surface of the Dermatape and the skin during excision of the graft. It is colored red in order to visually facilitate uniform application, and to permit the operator to better visualize the path to be made by the Dermatome as excision of the graft progresses. The Compound is best applied to the donor area by a ¾", flat, soft-bristled brush.

* * *

To Use Dermatome

1. Grasp the knurled grip of the drum in the left hand so that the left thumb is toward the same side of the drum as the yoke handle.

FIG. 12

2. Swing the yoke backward to rest upon the back of the left wrist. (The cutting edge of the knife will be facing away from the wrist.)

3. Release latch on stand with the right hand, and slide drum off the stand with the left hand.

4. The green surface of the Dermatape, now integral with the drum, is applied to the previously coated donor site, and the graft is excised by reciprocal motions of the blade carrying yoke.

FIG. 13

5. When excision of the desired size of graft is complete, IMMEDIATELY swing the blade carrying yoke back over the excised graft, allowing it to come to rest upon the back of the operator's left wrist. The graft is then severed from the distal end of the donor site by a scalpel, using the drum as a base upon which to cut.

To Remove Dermatape from Drum

1. After cutting graft, replace the Dermatome on the stand. (Be sure the latch locks the drum in place on the stand before releasing grip upon it.)

2. Rotate the blade carrying yoke against the back rest of the stand.

3. Insert the winding handle in socket and unwind the tightening spool two or three turns. Release the Dermatape from the tightening spool. Swing the blade carrying yoke under the drum. Then release the Dermatape from the clamp at the front end of the drum. The Dermatape, bearing the skin graft, may then be removed.

REMOVAL OF DERMATAPE FABRIC BACKING

FIG. 14

To facilitate application of the graft to the recipient site the stiff, glass fabric backing of the Dermatape is now removed.

1. At a corner of the Dermatape grasp the green and red rubber with the nose of a hemostat. (Mosquito forceps will be found convenient.)

2. Stretch these two layers of rubber slowly out from under the edge of the fabric backing, thus freeing the corner of the rubber from the corner of the fabric backing.

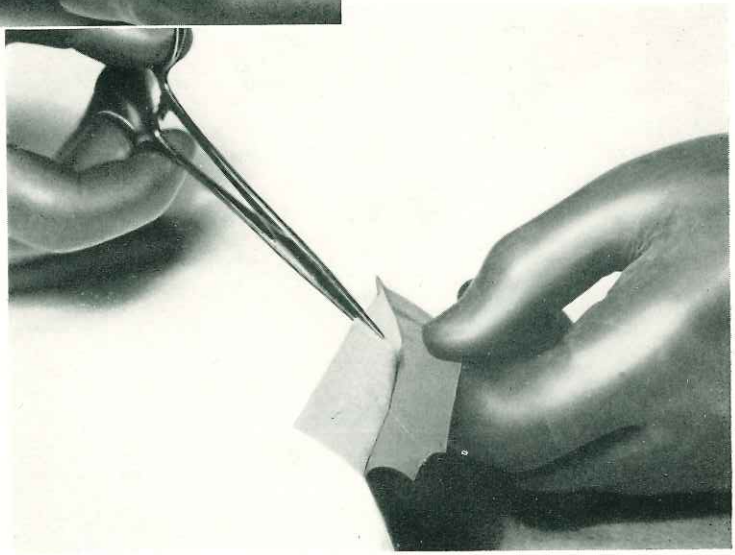


FIG. 15

3. Grasp the FREE area of fabric backing with the hemostat, and the FREE green and red rubber layers with the fingers of the left hand. By opposing traction progressively free the backing along one edge of the Dermatape.

FIG. 16

4. When one edge has been separated enough to permit grasping with the fingers, complete the separation by hand.

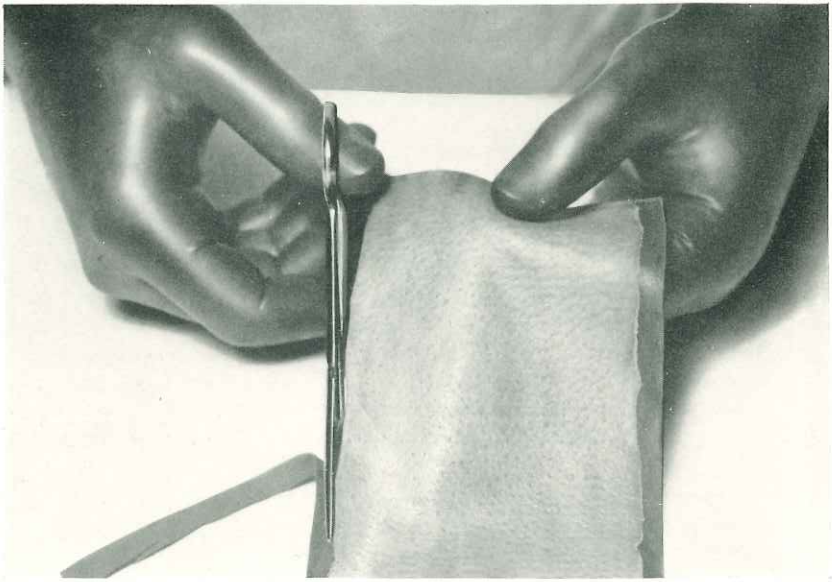
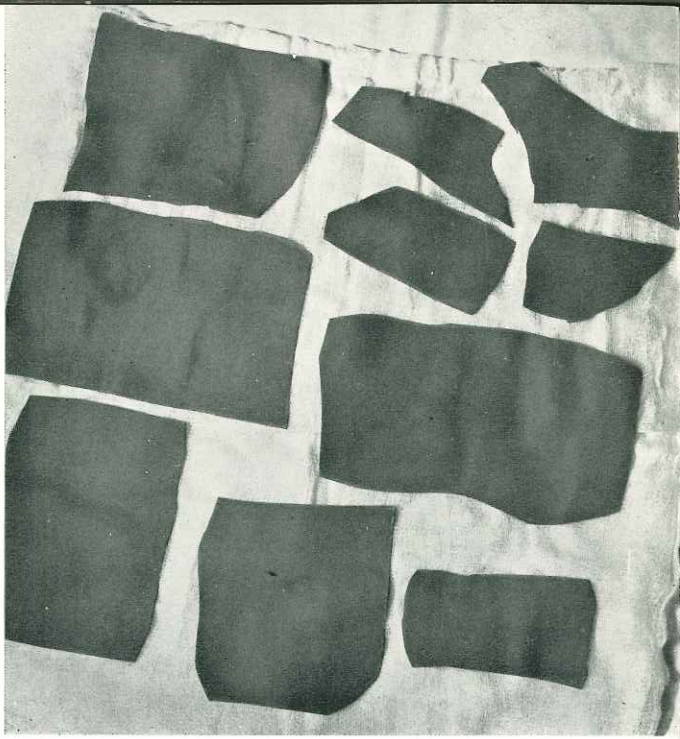


FIG. 17

5. With scissors, cut away any marginal areas of the rubber not covered by the graft.

FIG. 18



6. If application of the graft is not to be immediate (as in the case where multiple drums are required) place it — skin surface down — upon a flat of MOISTENED (not wet) gauze to prevent drying.

CARE OF THE REESE DERMATOME

The Reese Dermatome is a finely constructed, precision instrument. It is ruggedly built and will withstand ordinary hard use, but it cannot be mechanically abused without impairing its accuracy and its ability to function properly.

1. The drum should be mounted on its stand at all times except during sterilization.

2. The Dermatome should always be placed upon a solid, four-legged table to insure it against accident.

3. It must be kept clean. After each operation:
   (a) Unscrew the two knurled nuts on the blade carrying yoke and remove the clamp bar. Cleanse both sides of the clamp bar and yoke — *this is very important.* Any blood or residue remaining on these surfaces alters the accuracy of the instrument.
   (b) Cleanse the worm and gear tightening mechanism with a tooth brush, and soap and water. Do not lubricate this mechanism.
   (c) The shaft of the yoke can be cleansed by wiping the projecting portion on each side of the drum with gauze well saturated with ether.

APPLICATION OF GRAFT TO RECIPIENT AREA

The DELAMINATED Dermatape now provides a thin, pliable rubber splint for the graft, with just sufficient body to prevent contraction or wrinkling; and at the same time, provides maximum flexibility and "give" for conformation to irregular recipient surfaces.

According to the demands of the lesion, and the wishes of the Surgeon, the graft is now applied to the recipient area by utilizing any of the following methods:—

1. Without Sutures (Legs, arms, scalp, etc.)

The graft, adherent to the rubber splint, is tailored to the lesion (allowing some overlapping) and secured by circumferential, elastic adhesive strips.

2. "Postage Stamp" Grafts (Massive lesions with insufficient donor sites.)

The graft and adherent rubber splint may be cut into "postage stamp" segments and applied to lesion. In practice, these grafts are readily 'handleable' — because the graft does not curl or contract, and the red rubber surface lends itself well to immobilizing agents, such as strips of adhesive tape to hold the "postage stamps" in place.

3. With Sutures (Chest, abdomen, etc.)

Both the graft and the adherent rubber splint may be sutured to the lesion and dressings of choice applied.

4. Stent Grafts (Depressed lesions, cavities, etc.)

Because of the 'two-way' give of the rubber splint, the graft on the rubber may be accurately sutured around stent and applied to lesion.

5. With Sutures — and without Rubber Splint

If it is desired to apply the graft to a lesion by the conventional method of suturing, *without the rubber splint*, it may be readily removed from the Dermatape immediately after excision ENTIRELY FREE OF THE ADHESIVE COMPOUND. It is therefore not necessary to dust the external surface of the graft with powder to prevent the graft from adhering to itself, or to rubber gloves.

* * *

Removal of Dermatape Rubber Splint at time of First Dressing

Within five days the green rubber surface of the Dermatape has completely absorbed the layer of Reese Compound applied to the donor area, and thereby relinquished its adhesion to the skin graft.

The rubber splint may, therefore, be peeled away, at the time of the first dressing, without disturbing the newly grafted skin.

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